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GEOGRAPHIC CONDITIONS THAT MAKE GREAT COMMERCIAL CENTRES.

BY

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The student of American history will be struck with one remarkable, overtowering fact, which is that the men who inaugurated civilization upon this western hemisphere did not attempt to transplant here the old life of Europe, but from the very beginning, whether wittingly or otherwise, made this in truth morally and politically a new world. The result has been that principles, which seemed established for the stability of earth, have presented themselves here as problems to be wrought to a solution with travail and expense of gold.

If the problem about to be discussed ever appeared as such in the Old World, it was settled ages before this continent was known to the civilization of Europe. But the European had never formulated the principles on which he established commercial ports, and if he had, the American would have ignored the equation, declaring that the elements being different on this side the globe, the results must be different. The American, like all youth, would insist on his own experience to discover that there are natural laws of commerce, the same the world over, the only difference being that in a wide, sparsely settled territory, like the United States, the ramifications of trade are more extended and therefore more attenuated.

The business of the world is done at centres of exchange. These centres in our country are the cross-roads grocery and variety store; then the knot of a half-dozen larger establishments, surrounded by a few dwelling houses, a church, a school-house, a post office, and to-day a liquor saloon and railroad station. A large village follows, called perhaps a country town, to which many hamlets are tributary; and the shire town, larger than any yet mentioned and containing all their advantages, with the court-house of the county, possibly a saw-mill and some manufacturing establishments. After that comes the commercial port of the region.

Without reflection, it would seem natural that all the smaller establishments should make towards the coast, and that the commercial port of a region would be the nearest of all to the great highway of nations; that the nearer the ocean a good harbor can

be found, the better the prospect for building the commercial centre of exchange of any region.

On account of the influence of railroads and capital in rooting out old stage stations and building up some prairie towns or manufacturing and suburban villages, it has come to be believed that these agencies are able to control the fortunes of whatever place, and are all that are requisite to bring new cities into being and maintain them in prosperity.

Our Atlantic coast is strewn with ruined hopes in the shape of stillborn cities, having excellent harbors and abundant water front, of which the only *raison d'être* is superior facility of access from the ocean.

There has been abundant honesty of purpose in the design and no excessive credulity in the investment; but there does appear to have been a failure to comprehend and appreciate the laws of trade affecting the project. It becomes, therefore, a proper study to ascertain if capital is justified in assuming to force the solution of so important a problem, and whether there is not involved as superior to capital a natural law, the elucidation of which shall aid in the settlement of these questions.

As the investigation proceeds, the problem undertaken appears so clear and the conclusions so natural and just that one is almost deterred by their simplicity from stating them so formally. But, when we reflect that however clear and natural and just the truth seems to be, many of the wisest men of affairs are constantly failing in this field, we recognize the necessity for such a statement as shall make it not only positive, but tangible, and remove, so far as we are able, a certain class of speculation from the region of chimera to a field of certainty.

More than a half-century ago, when the pioneer steamer of the Cunard line entered Boston harbor, the merchants of that enterprising town felt assured of commercial triumph in the race with New York, because they were twenty-four hours nearer Liverpool than their sister. Some not too "wise men of Gotham" were alarmed, and wondered if they had not committed an error when they settled in the Dutch metropolis, although the population of New York was 300,000 and Boston contained less than a third of that number. To-day New York is the centre of a population of 5,000,000 and Boston of somewhat less than a million. A steamer leaves New York daily for Europe, and another sails once a week from Boston. To the wonderment of the Boston merchants, New York and not Boston has become the commercial metropolis

of the country. In those days, Boston boasted the two or three wealthy men of America. A Boston bank note was as current all over the country a half-century ago as a national bank bill of the present day. This could never be said of the banks of New York, nor of any other city in the United States. The Boston business man figured up the situation logically, as it appeared on the surface of things, quite in his favor. He said: We have the American port nearest Europe by twenty-four hours; an excellent harbor covering one hundred square miles; we have enormous capital and can offer trade every facility it demands; we have the most intelligent population, the purest municipal government in the world; the highest reputation for commercial probity and honor; all this with business liberality and enterprise. "The Solid Men of Boston" stood for a commercial proverb. Nevertheless, New York has pushed ahead, and no amount of money expended to tap by a short route the western country north of New York, or to draw traffic directly from New York by shorter railroad lines, has yet effected the object of the projectors or is likely to effect it.

On investigation, this result appears in harmony with a natural order, independent of the enterprise, wealth and character of merchants. New York is more than 200 miles nearer the heart of the country than Boston. This it was made her advantage. The moving mass that seeks transportation reckons that distance to be as nothing on the ocean compared with the cost of movement on land or river. The cargo of a great steamer transported between New York and Boston fifty years ago, would have demanded the service of ten locomotives and four hundred cars, with all the cost of transshipment. On board the ocean steamer it represents only the comparatively inexpensive continuance of her voyage for another half day.

New York and Boston are not unique examples of such a relation of things. Going south we find that every commercial port of the country has been made the mark of an ambitious rival, under the mistaken apprehension that an error was committed in the original location.

Thus, Philadelphia, on the Delaware, 120 miles from the ocean, has grown into grand proportions, and continues to grow, in spite of the desperate exertions of the two or three ports greatly nearer the highway of nations. Commerce refuses to be persuaded to avoid a tedious navigation against the chances of head winds in a narrow roadway, and avail itself of a port easy of access in the lower bay.

Another instance of the perversity of commerce in passing by great advantages to get up stream is witnessed in the position of Baltimore, 108 miles from Hampton Roads.

Continuing along our southern coast, circumstances of the Civil War led to the development by northern capital of one of those enterprises on that coast, that was to revolutionize the commerce of the region and destroy the two old cities of Savannah and Charleston. A harbor nearer the sea and accessible to vastly greater ships than can enter Charleston was found at Port Royal, of which, the Encyclopedia says, "its harbor is one of the finest in the world," and this, it was believed, would drain both those towns of their wealth and population. Capital seized the point and tapped the neighboring country with its railroad. Streets, wharves, warehouses, corner lots and advertisements flourished for a time. New York was to be supplanted by a great seaport, towards which all the trade of the South, with its immense treasure of cotton, was to rush for direct shipment to Europe, without the intervention of fearful Wall Street and a cotton exchange on a strange soil. Port Royal was to be like the focal centre of a folding fan, towards which all the ribs pointed from the plantations of the entire grand Southern territory. But, after thirty years of struggle, Port Royal is a dull shipping point, with a negro population of about 1,000, a sort of back door to the cities it was designed to obliterate; and Savannah and Charleston remain live cities.

For twenty-five years capital struggled to build a commercial city at Brunswick, Ga., in rivalry to Savannah. The capital, the superior facilities and the twenty-two feet of water on the bar, all still exist there, but as yet no important port has arisen from their ingenious combination. To-day it is a town of palaces occupied by negro laborers.

And all this, notwithstanding the fact that both cities—Savannah and Charleston—must be reached from the ocean, by crossing bars that give inferior facilities, both as to safety and depth of water, to those offered by the new enterprises.

It will presently appear that in these as in all other cases the effort of commerce is to reach the producer; to get as close to him as possible to sell the supplies the wealth of his production will permit him to buy; and to seize his produce for the profit of its marketing.

And still, continuing along the southern coast, we come to another similar project for building up a commercial city at Fernandina, Florida. In its ambitious progress towards this great

future it would destroy the value of Jacksonville, then occupying the envied relation to an extensive territory, believed to be entering a promising era. The only apparent argument against such a result lay in the fact that Jacksonville had the start, by several years, and a population of 2,500 souls, among whom were counted the leading men of the State in wealth and character. But the harbor of Fernandina seemed to possess every commercial combination for the success of the scheme. It was on the inside of Amelia Island, only six miles from the bar over which vessels drawing twenty feet could pass in ordinary high tides, while Jacksonville was twenty-five miles from the ocean, and must be reached by crossing a dangerous bar on which the water was at best but twelve feet deep and often unfit for passage, by reason of the heavy rollers that broke over it whenever the wind was east of the meridian. Fernandina is the healthier of the two sites; yellow fever dies out, when brought to Amelia Island, whereas it has twice decimated Jacksonville. A railroad from Fernandina to the Gulf of Mexico was in course of construction, and would put all the Gulf ports in close connection with a first-rate harbor on the Atlantic.

Fernandina was, moreover, a pet of the national Government. United States officers had been employed in its railroad construction and in buoying its harbor as in pushing forward the coast surveys, which should make the superior value of the port known to the world of commerce. Distinguished politicians of the dominant party controlled the enterprise; a United States Senator was its president and the Governor of the State of Florida was its home guardian. The town site and the Florida Railroad were bought by a distinguished New York capitalist; and another northerner has spent millions in railroad and canal lines in Florida, in palatial hotels and the development of winter resorts; four steamship lines run to Fernandina. One would suppose that such remarkable prosperity would have been the prosperity of the only good harbor on its coast, and that Fernandina would to-day be an important commercial city. The actual fact is that Fernandina, with its excellent harbor and magnificent intentions, contains a population of 1,800, mostly negroes, while Jacksonville, twenty-five miles up a river, and reached only by crossing the worst bar on the coast, except perhaps at Charleston, has already a population of 36,000, and is become the commercial port of the region, compelling from the national government the attention demanded for the improvement of the St. John's River bar.

Observe now that Jacksonville is in closer connection with the

centre of production than Fernandina. While this town is but six miles from the ocean, Jacksonville, on a river that extends straight in towards the interior—on a line normal to the coast—is, by the difference in distance from the sea, just so much nearer the heart of the country. A railroad from Jacksonville and one from Fernandina cross each other twenty miles from Jacksonville and fifty from Fernandina, the common point reached from the producing centre being thus thirty miles nearer Jacksonville than its rival aspirant, which being on an island is inaccessible to the wagons of the farmers, the absorbing idea of the speculating projectors being, that nearness to the ocean, good harbor facilities alone, would force the country to come to them. Jacksonville is not only nearer the same centre of production that stimulated the greed of Fernandina, it is on a river that stretches away to the south, through more than a hundred miles of fertile territory, thus bringing another producing region into facile connection with the town.

If we go around to the Gulf coast we find New Orleans one hundred miles up the Mississippi River at the head of ship navigation. This great port has crowded as close to the interior of the country as possible, when it might have been established nearer the Gulf and thus escaped the troublesome river navigation. Some years ago a railroad was built through to the coast, passing west of New Orleans, and a line of steamers established to run to the ports of the South. Morgan City still exists, with about 2,000 inhabitants, and does a sort of alley-door business for the great Southern metropolis. Mobile has a population of less than 32,000, although it is nearer the ocean, from which it is more accessible, and has excellent railroad connections. But even Mobile (as well as Morgan City) has been put at the head of the bay on which it is located, thirty miles from the Gulf, so as to get as near the producing centre as possible, \$1,000,000 having been expended on the channel of Mobile Bay by the United States Government to this end. And Mobile is now, as to its accessibility from the ocean, in a better position than New Orleans, while in geographical miles it is nearer the producing centre of which New Orleans has always been and remains the commercial metropolis. Mobile has held this apparent advantage since 1875, and yet its growth in population has remained stagnant or worse, for in 1870 it contained 32,000 souls, while in 1890 there were 200 less.

It is an interesting fact and quite in the line of our argument, that Mobile has taken the trade in tropical fruit away from New Orleans. Mobile is enough nearer the fruit-producing region, and

has facilities for handling the article rapidly not to be had at New Orleans, and every hour in dealing with the perishable stuff is of value.

Ten years ago, when I first presented this subject to the attention of my profession, the relation of Galveston and Houston in Texas was pointed to as an exception to my conclusion. It was said "Galveston has grown up as the commercial port of Texas; it is the only Texan port having a tolerably good harbor, but ocean-going vessels can be taken on the Buffalo Bayou nearly up to Houston, and with small expenditure of money a port could have been built up at some interior point on Galveston Bay. Galveston is built on a sand bar, practically 50 miles from any agricultural country, directly on the Gulf, and while the wharves on the inside are in a well-protected harbor, the island on which it is built is exposed to the violent action of the Gulf waves. The City of Houston at the head of Buffalo Bayou is fifty miles nearer the agricultural portions of the State; the railroads centre at Houston, and a single line connects Houston with Galveston; still Galveston is the commercial metropolis of Texas; it has become so because its wharves could be reached with less difficulty than those of Houston or even of Harrisburg, at the mouth of Buffalo Bayou." This was the argument adverse to my position. The answer I made at the time was, that "what can be done by a small outlay of money cannot as yet be fairly considered, for Texas is still a new country and must accommodate itself for the present with the existing facilities for its very limited amount of shipping. Glasgow is an example of what an outlay of money in the way of improving a channel will accomplish, and perhaps Houston may one day be another; but as yet no money has been expended."

Now, if I could have looked forward ten years, or if I had made a careful study of all the facts at the time, I should have seen that this very case illustrates the tendency of commerce to get as close to the producer as possible for its port. Houston has become, like Glasgow, an example of what an outlay of money in the way of improving a channel will accomplish. \$193,000 have been so expended by the United States Government in deepening the channel of the Buffalo Bayou, so that if 13 feet can be taken in over the bar to Galveston the same depth may now be carried on up to Houston; and now Galveston, while a commercial port, has taken a secondary position in the commerce of Texas, and is not the port of that region to which Houston is related.

Galveston has commercial importance, but its growth is com-

mensurate with the growth of the coast districts, which has not been comparable to the growth of the interior. Houston, on the contrary, has grown with the development of the interior of the whole State of Texas, the great producing region. It happens, therefore, that Galveston is moving up to Houston, as shown by the statistics of population. Galveston has been a well frequented harbor ever since 1818, when it was the prey of the buccaneers; and the Pirate Lafitte found there a convenient harbor of refuge. After the Civil War, Texas received an important impulse in settlement, and in 1870 Galveston contained a population of 14,000, while that of Houston was but 9,000. But the State grew and the Houston man was closer to the interior than the man at Galveston, though it cost him a good deal to receive his goods. Hence in 1880, its population was 19,000 against 22,000 in Galveston. In 1890, improvements had progressed on the river so as to assure improvement for Houston trade, and its population had reached 28,000 against 29,000 in Galveston, and to-day Houston has a larger population than its rival, if it may properly be so styled, by 5,000. It may be claimed that this result is due to the railroads, which have made Houston a great centre, which is undoubtedly true, but would have had no existence in fact if the natural position of the town had not marked it to capital as the proper commercial centre of exchange instead of Galveston. The railroads would have gone to Galveston, but they have instinctive recognition that Houston and not Galveston is the distributing point for the merchant from the outside, who wishes to secure the trade of the interior of Texas. The natural result is that the wholesale trade of Galveston is moving thence to Houston, which, now greater in population and with greater movement in money, as exhibited in its bank clearances, will show in the next census that it has outstripped the old town in those features of wealth and prosperity that make a commercial centre.

But now another reflection arises touching the future of Galveston, of which the decadence may yet be arrested. The United States Government is spending \$6,000,000 in the construction of jetties at the mouth of Galveston Bay for the purpose of admitting our largest warships to a harbor on that part of the Gulf coast. That port will then be accessible to vessels drawing 30 feet of water. This depth will admit the largest steamships that float, while as yet only 13 feet can be taken up to Houston.

If, then, an extensive coast system arises to support the trade of Galveston, the town will become something more than a mere port or commercial centre for the planters of the interior. It will

be a market, in the category of New York and San Francisco and Liverpool; not certainly in degree, but simply in nature. In that event it will become the point of attraction for Mexican trade and shipments in addition to those of its own limited coast. But Galveston must be *built* to such position by becoming the market of an important coast system which does not yet exist, for the Texas coast is still an unimportant producing territory. Otherwise, it will become and remain only a convenient shipping point, without commercial importance.

But the future of Galveston is an exceedingly nice problem, requiring patient analysis of the data, which cannot be given in the time at our present disposal.

Leaving the Atlantic Coast, we find a rich field of investigation in the far Northwest. The relation to the commercial world of Astoria, on the Columbia River, is an interesting instance of the conflict of capital with law in the attempt to regulate commerce.

Founded by one of the wealthiest, shrewdest, most enterprising and far-seeing citizens of this country, it became as it was intended by him to become, the depot of the fur trade of the Northwest. When the fur trade failed and simply a home market existed for the salmon of the Columbia River, the men who had staked their fortunes or their hopes on that important point beheld with new satisfaction the settlement of great Willamette Valley above them. It was a natural expectation, that Astoria should become the commercial port of all that region. It was an established town; it possessed a harbor six miles wide, safely protected from the ocean, which was close at hand. It has grown continuously and is still growing; but this town, so convenient of access from the ocean, has seen the port of Portland come into being a hundred miles farther up the river and grow to a city of 80,000, while Astoria has never yet sheltered 8,000 souls.

The Northwest has been a prolific field for the exhibition of the speculative spirit of the men who have received vast areas of public lands from the national treasure and, backed by the national credit, have built the great trans-continental railroad systems. The Northern Pacific Railroad Company has been especially ambitious to own the earth and all its outlets. Twenty-five years ago, capitalists interested in developing the promising points along the route of the thoroughfare, determined that the Columbia River terminus of the line must be the commercial metropolis of the Northwest, the port of that great river system. So they located a town at a point sixty miles above Astoria and forty miles below Portland.

Such a magnificent location was to wipe out both former pretensions, and the town of Kalama was born, where railroad and stream and speculators had their union.

Maps were prepared, hotels and churches erected, elevators, warehouses and great docks projected; and the line of the Northern Pacific Railroad was built thence to Puget Sound.

By virtue of its future outlook, Kalama became a county seat. Corner lots in the heart of that famous townplat sold for \$3,000 each; water lots were laid out along the river bank and sold for the sum of \$3,000 per 100 feet of frontage.

Kalama still exists, but only in name; and the investors in its prospects have added the suffix "ty." The Columbia River still flows by its site as broad and deep as when Jay Cooke made note of its promise; but the once well-filled churches are abandoned for want of congregations; a corner of the grand hotel serves the purpose of court-house and jail; the splendid water lots still remain under the shadow of primeval trees, the only improvement they have experienced being in a reduction of annual tax from \$28 to 15c. And yet this bubble was the scheme of men eminent for wisdom. It was inspired by reputable engineers and accepted by intelligent capitalists. Nor can there be any doubt of the uprightness of intention when we consider the high character of the men who gave the project their approval and practical endorsement.

Kalama is but one of several similar experiments that have sprung from the fruitful womb of Northwestern enterprise. When the Oregonian Railway and Navigation Company became the great power of the Columbia River Valley, it attempted a similar scheme; one in which many railroad companies have embarked and failed. Selecting St. Helens, a good place for a harbor and apparently for a town, when it was considered that all the transportation of the great river was in the hands of the monopoly, and several miles nearer the ocean than Portland, it built docks and warehouses and waited for the rush of capital from Portland to its sheltering arms. But the man who had goods to sell was too wise to leave his customers simply to get nearer the ship that brought his goods; and he said to the company if you can't come to Portland some other ship will; the result was the ship had to go to Portland, and St. Helens was abandoned.

The Northern Pacific Railroad Company has made another attempt to build up a commercial metropolis of the Northwest at Tacoma on Puget Sound. The position is well selected for doing the business of a limited district. It can never become a town of

commercial importance. It is at the head of the Sound and thus would seem to be near the heart of the producing region. It happens, however, that the "producing region" does not lie in that direction. There is a limited area of good country that comes naturally down the Puyallup Valley and Tacoma is at the mouth of that valley. We may understand how trifling is the area of production when we know that the Puyallup drainage passes off in a stream navigable only for canoes; that all the trade of Tacoma must come down the line of a single railroad. It was intended to be the terminus of the Northern Pacific Railroad, of which it has been the constant pet. Fine hotels, street railroads and all the modern conveniences of a great capital exist except the business, which is largely in real estate and gives a stock-exchange character to the town.

Some years ago there were ten banks in Tacoma, which sounds large; but their aggregate capital was a trifle more than a million and a half; since recent failures there are but two banks left. Steamships sail from the railroad wharves of Tacoma to China and Japan, just as four steamship lines sail from the wharves of Fernandina and with as little advantage to the port as a commercial centre. The booming advertisements of Tacoma claim annual foreign imports to the amount of \$10,000,000; "mostly," say their authorities, "from China and Japan." That 36,000 people drink \$10,000,000 worth of tea per year seems extraordinary even for Tacoma. The truth is that Tacoma has no particle of interest in those cargoes. They are shipped across the continent to Chicago and New York as rapidly as they can be loaded and got away. The same advertisements tell us of manufactures to the annual amount of \$9,000,000. This is a better claim, but does not justify the great expectations of phenomenal prosperity, it being part of a system by which a land company is to work off its investment.

The Northern Pacific Railroad Company has built car shops in Tacoma that cost \$1,500,000 and the results are given out as the manufactures of Tacoma. There are some saw-mills on the lower edge of the town. They were there years ago, before any railroad was thought of in that region and from six to ten large vessels are always at their wharves loading lumber. These mills and this lumber are owned in San Francisco; not even a pound of sugar or coffee or a loaf of bread is bought for these works in Tacoma. The workmen board in the company's houses, eat the company's food and drink the company's grog. The annual results of the mills are credited to the "City of Destiny" as 130,000,000

shingles and 17,000,000 feet of lumber, with which Tacoma has as little to do as with the creation of the world, save that some use is made of the banks for convenience in paying off men.

No important wholesale trade belongs to Tacoma. There is not in all the town a wholesale drygoods or grocery store. Much of the land once laid out in city lots has reverted to acre property. The street railroad and electric-light business are in the hands of receivers. Its present condition illustrates the impotency of capital's brute force when exerted against the natural laws of commerce. So far, Tacoma has failed to attain a position as the port of the little Puyallup Valley and the limited territory west of the Cascade Range. It has become a simple way station on an important railroad line, since the Northern Pacific Railroad Company has been forced by the demands of business to extend that line to Portland and Seattle. But by the nursing of the railroad company, Tacoma has succeeded in attaining position as a manufacturing town of subordinate importance, which is the legitimate province of capital.

Seattle, on the Sound at the mouth of an extensive river system, the centre of traffic in those valleys, that loads and discharges forty steamers a day, was left aside by the Northern Pacific Railroad Company. It was not the right field for a grand land speculation, being already an established town. It was going to be an easy matter for a powerful railroad company to force the traffic of those valleys, that came to Seattle to buy supplies, from their old channel into the promising property of Tacoma. The merchants of Seattle knew better. They failed to take alarm and held their ground to the surprise and consternation of the speculators. It is easier for one trader to take his goods to a community of a thousand customers than it is for a thousand customers to go a long way from home to buy goods. And so, in spite of the existence of a railroad and all its power, the Seattle man was close to the producer and he saw that his customers had their goods at as cheap a rate as anybody in Tacoma, for he had the Sound and steamers to many points on the coast. Without a railroad Seattle prospered and without booming. It forced the construction of proper Eastern connections and has become indeed a great railroad centre, being the terminus of four transcontinental lines. Seattle is an interesting instance of New England shrewdness.

It will be interesting, now, to look along the northern border of our country and observe the growth of towns on the St. Lawrence River and the Great Lakes.

There was a time when Quebec, the capital of Lower Canada,

was the commercial metropolis of those provinces, but Montreal, 220 miles farther up stream, took its place; and from 1850, when their population was about equal, Quebec has grown from 40,000 to 70,000, while Montreal in the same time has acquired a population of 220,000. It is nearer the centre of production, closer to the heart of the country. Following the same line of experience, Toronto, 333 miles farther inland than Montreal, had in 1871 a population of 56,000 and to-day has nearly 200,000, having somewhat more than tripled, while Montreal has rather more than doubled.

The opening of the Erie Canal in 1825 had a wonderful influence on the growth and future power of two towns. Up to that date, New York had been second to Philadelphia in commercial importance and population; but once the construction of the canal became an assured fact, New York, being brought into closer relation to the producing regions of the country, and cheap communication being established, the great West, as we then knew it, lay at her feet. But also, the little village of Buffalo became an outside ward of the City of New York. Up to 1825, its population had not reached 3,000 and in 1830 it had tripled; and to-day it amounts to 300,000.

Cleveland, farther up the lake, is growing even faster than Buffalo. You would suppose that produce making for the coast would rather go to Buffalo as being nearer the sea and in closer connection with the metropolis of the coast. Now Cleveland had in 1860 about the same population that Buffalo had in '50, but in 1890 Cleveland had a population of 262,000 as against the 254,000 of Buffalo.

A lesson is taught in this connection by the rapid growth of Detroit, 18 miles from Lake Erie, up the Detroit River, and 7 miles from Lake St. Clair, with a population of 250,000; not a harbor on the lake, but crowded into that narrow strait, that the importer may get as close as possible to the promising Michigan peninsula.

Thus, while Detroit supplies Michigan, and Cleveland grasps the wealth of northern Ohio, Toledo has seen the opportunity presented by the limited region lying between them and establishing itself eight miles from the lake, up the Maumee River, is already a great city and doing a service to commerce, the opportunity for which it has snatched from Detroit and Cleveland, because nearer than they to the producing territory.

We approach now the wonder of the century. Chicago is in-

creasing in population at a rate nearly double that of the combined cities of New York and Brooklyn. In three great products, grain, lumber and live stock, it leads the world. Lying at the foot of Lake Michigan, it appears in a *cul-de-sac*. How does it come that a great centre of exchange has grown up at Chicago? It seems more rational for it to have come to Detroit or Toledo, 140 or 160 miles farther east. It is 800 miles from the ocean across country and 2,000 miles away by the only water route open to it. Is it great by having been made the focus of so many railroad lines? On the contrary, it is the centre of so many railroads because its position marked it for greatness. It is a great railroad centre because it lies so close to the heart of an exceedingly productive country. Chicago does not exist by reason of the railroads, but the railroads do exist because of Chicago.

Proceeding still westward, we find Duluth-Superior at the upper end of Lake Superior. We see at once it occupies a promising position, not because it has been made the terminus of railroad lines, but because it is favorably situated geographically, to be the *entre-pôt* of an important producing section. Observing, however, that Duluth has a fine future only on the west and south, and that for a very limited distance, we discover at once that it is not to become another Chicago, nor even the peer of Detroit or Cleveland. The idea has been indulged that Duluth with its 30,000 souls may absorb St. Paul and Minneapolis with an aggregate population of 350,000, because it is on the lake, while the others are inland towns. The man who invests his money with this absurd expectation deserves to lose it to the fellow who will make a better use of it. No merchant, who is now doing business at St. Paul or Minneapolis, will move 160 miles farther from his 350,000 customers, to get that much closer to the man in New York or Liverpool who is competing with others for possession of his crops and to sell him his stock of supplies.

The condition of things we have been considering is not confined to the American continent. It is a condition as long as trade and as broad as the world of commerce.

If men had looked no further than that little ancient island nearest to us on the European coast they would have discovered in Irish ports an illustration of the requirements of commerce so plain, so emphatically pronounced, the lesson seems extended towards us on the outstretched arm of Providence. The ports are simply the commercial ports of the regions in which they are found; that is to say, they do not control nor are they controlled by any extensive

coast systems. They are each the port of an interior district, drained by the rivers on which they stand. So we find Galway, Dublin, Dundalk, Wexford, Belfast, Sligo and Cork, the farthest points inland on the bays of those names to which a ship can go, while Limerick is at the head of ship navigation on the Shannon, and Londonderry is above Lough Foyle and several miles up the Foyle River.

While Liverpool, the port and mart of an immense coast system, is but three miles up the Mersey, but not too far removed from its customers, London, peculiarly the port of England's interior territory, is at the head of navigation on the Thames.

Glasgow, on the Clyde, owes its wonderful prosperity to its position at the head of navigation an artificial harbor, made practicable by its propinquity to the coal and iron of the country. When I was a boy, a man of my present stature could have waded the Clyde at Glasgow, without wetting his shoulders, and to-day no ship engaged in general commerce fears to charter for that port. Seventy years ago, everything going up the Clyde made for Greenock, now scarcely more than an outside ward of Glasgow.

Time was, when men thought to build a port on the Elbe, below Hamburg, and Altona was started as a rival to the great capital. It was nearer the ocean than Hamburg, and therefore easier to reach; it had the backing of a patriotic, ambitious government and for a time did seem to threaten the existence of the ancient port. But observe the perverse temper of commerce. Ships pass by the convenient port of Altona to enter the docks of Hamburg, and Altona has become only the suburban home of the successful retired Hamburg merchant.

A sufficient statement of fact has now been presented to justify a consideration of the premises that immediately determine the location of a commercial port or great mercantile centre.

The producer of a given region, whether artisan or farmer, will deliver his wares at such point as will entail on him the least cost of transportation; he will go to the port by the shortest road, as measured by commercial distance, in which not alone the geographical mile is the unit, but the mile multiplied by the cost of movement.

Again, there is never competition to sell among producers. Hence they are outside the struggles of trade; they are not found crowding forward toward the purchaser, the agent of the consumer, the exporting merchant. Indeed, the chances are that crops will be sold in the first instance on the soil that bore them.

If producers were competitors, commercial towns would be pushed toward the sea to catch the first chance at the customer from abroad; and farmers, turned speculating capitalists, would become the originators and managers of railroad lines. But, on the contrary, the agents of the consumers, the merchants who send the crops abroad and import the goods they barter in exchange, are the men who jostle each other in the marts, who push into the interior of a country, to get as near to the field of produce as they can reach.

Thus it is that a great commercial city cannot be reared near the coast at any site which a large ship can pass, and sail nearer the producing region to load or even to unload. A new port may be built farther inland than a port already existing, as in the case of Glasgow, provided that in so doing it gets nearer the producing centre, which is the object of the old port; but a new port cannot be successfully removed from such a centre and placed nearer the ocean; it cannot thus injure the original port. It will, possibly, become a convenience, like the area door of a man's residence. It cannot reach a higher dignity.

From all these elements, I deduce the proposition, which I venture to call a law in political philosophy, that *the commercial port of a region will be as close to the producer as it is possible to go, and obtain reasonably good facilities for the class of transportation demanded by the produce of the country.*

I say this is the law; I believe it to be the inexorable, immutable law, without exception in the world's economy.

In accordance with this law, Montevideo, on the outer coast of Uruguay, has a population of 175,000, while Buenos Aires, a hundred and thirty miles up the river, contains 600,000 inhabitants. Guayaquil, in the edge of a sickly swamp of Ecuador, might have been healthily placed forty miles down stream, at a point famed for its salubrity, imposing forty miles less of river navigation, with equally good facilities of anchorage and discharging cargo; and better potable water for a population. The expense of transporting the products of the country, by the agency of native boatmen on balsas or in canoes, to a situation where whites can live without fear of malignant fevers would be trifling indeed; but such a course would separate the speculator from his game, the cacao, hides and woods of the country, and the merchant from his customers, the producers of those articles, by all that distance of forty miles, letting some braver adventurer cut it short and pitch his camp at his

customer's door, though the Angel of Death stood guard there, with the two-edged sword of yellow fever and small-pox.

I have said that "a great commercial city cannot be reared near the coast at any site which a large ship can pass and sail nearer the centre of production to load or even unload." At first view the statement seems inapplicable to New York, because the Hudson is navigable for large ships a hundred miles or more above that city; but this isolated fact does not contradict the law. If New York were simply the commercial port of the Hudson River valley, the objection to the law as stated would hold good. But the truth is it was not the port of that valley until the importance of its relation to a grander producing territory forced tribute from or absorbed every community within its reach. Albany, settled in 1614, was the all-sufficient port of the upper Hudson until increased population gave the region a foreign commerce, and then Hudson, at the head of ship navigation, 116 miles above Manhattan Island, became the port of the valley, maintaining an amount of shipping superior to that of our great metropolis, and carrying on trade with the West Indies and Europe, in addition to its whaling and fishery enterprise. But the valley is restricted in breadth; there was no great extent of country to seek its waters; going up the Hudson was not going inland, in the sense of approaching the heart of any great producing region.

The birth of New York in 1623 was an existence quite independent of the river valley. It was the centre of an immense coast system, including Manhattan, Long and Staten islands; New Jersey, directly west, and the shores of Connecticut. The valleys of the Passaic and Hackensack and all the country back of the precipitous west bank of the North River found the Manhattan port more accessible than any other point.

Meanwhile, Elizabeth and Newark became the centres of promising agricultural and manufacturing districts, and naturally brought their commercial exchange to New York as the nearest market. But, as late as 1820, the population of Philadelphia, so much nearer the heart of production, was greater than that of New York and remained so, until work on the Erie Canal had progressed three years and made the canal a certainty. The belief in this certainty gave impetus to values immediately along the line and in the valley of the Hudson. When the canal was opened, New York was moved just so much closer to the interior, and the merchant of the city sent forward his agents to buy up grain and ship to his port, so that if Liverpool, London and Hamburg had been the principal

grain markets of the world, New York now entered into the same category, and its population was doubled in the decade that saw the canal finished.

New York, therefore, is not simply the commercial port of the Hudson River valley, but of half the continent, and owes its position, not to its accessibility from the ocean, but to its central location with relation to the producing region directly west and southwest, as well as northwest.

It has been urged that "on the Pacific Coast there is the case of San Francisco. That city lies close to the ocean. Apparently it is removed from all producing country and owes its commercial position to its accessibility from the ocean. Before the introduction of hydraulic mining, good-sized vessels could go up to Sacramento and the largest class of vessels still take their cargoes up to Benicia and load there for return, with the products of the San Joaquin valley. If we look no farther, we shall say that on the basis of what has been here claimed to be law, Sacramento, which is in the heart of the great valley of California, and which is as much nearer to the mining districts as it is to the agricultural region, ought to be the commercial metropolis of California, and the Sacramento River should have been improved instead of being allowed to deteriorate. If, however, the difficulties of river navigation seem too great, then a great city ought to have grown up at Benicia, or at some point above that site. The facts are precisely the reverse. San Francisco, nearer the ocean than any point named and farther from the centre of production, has become a great commercial metropolis in violation of what has been proclaimed as a natural law." This was the argument. This view is, however, extremely superficial.

On close analysis of the case we find San Francisco occupying a situation much like that of New York, in being the centre of an extensive coast system. It forms no exception to the general law, nor even a modification of its absolute truth.

Sacramento is the port of the upper river as Benicia is of the lower, receiving the products of the San Joaquin Valley. Tributary to them is a population of 250,000 inhabitants.

But San Francisco is the port of a distinct region. It is not only the convenient harbor of all the lower bay with a population of 250,000, outside its own municipal limits, but is the only first-class harbor of all the coast between Monterey and the Columbia River, a region with an additional population of 400,000 souls.

As the little ports along the coast bring their tribute to a mart

in light sloops and schooners, they must find a harbor as near at hand as possible, precisely as the inland producer finds his port. This they have found in the Bay of San Francisco, as close as possible to the ocean and therefore for them as close as possible to the producing territory, and therefore as close as possible to the north and south ocean coast. And so San Francisco is located where it is, not to be accessible to the ocean, to Yokohama and Hong Kong, nor yet to the Sacramento Valley, which has its own port, but to the numberless little inlets along the Pacific shores north and south of there, which ship their products in small vessels to the nearest great harbor. If San Francisco did not exist a great port for the reason thus stated, it would not exist at all.

Like New York, being the centre of the varied products from a vast area, San Francisco has become a convenient manufacturing point and the port of a population of about a million souls, not including the Sacramento and San Joaquin valleys. On this account it has become a commercial mart as well as port, and has thereby absorbed the capital of all the interior river ports. Without New York and San Francisco, the valleys above them would ship directly to Liverpool or some other great market of the world. That has become unnecessary; they find the market at their doors, and ship to New York and San Francisco from their own upstream local ports.

It has been said in the discussion of this problem and in opposition to my solution, "that San Francisco is separated from the whole agricultural portion of California." So far is this from being the truth, that if we consider the Sacramento and San Joaquin valleys fairly tributary to Benicia, while the shores below Benicia and the sparsely settled coast are tributaries of San Francisco, the value of farms in the former district according to the last census is less than \$180,000,000 as against \$170,000,000 in what is called the "inferior" farming country, while in manufactures the valleys produce \$24,000,000 a year to be offset by \$172,000,000 produced by the manufactures of San Francisco Bay and coast.

It seems safe, therefore, to say that San Francisco has a *raison d'être* quite in accordance with the law as I have stated it.

Liverpool seems to be another exception to this law. Liverpool is one of the great markets of the world. It owes no considerable part of its mercantile importance to the trade of the Mersey. It is also a great coast centre, reaching out to the Irish as well as the English coast. It is especially the port of Ireland, one-third of its population is Irish, and but for the immense expenditure in docks

would be as independent of the caprices of capital for prosperity as any other city.

It has been said that the Manchester Canal is a failure because it should have removed the port to Manchester from Liverpool. This is supposing that the producing region of which Manchester is the centre is greater either in area or importance than that tributary to Liverpool, which is not the case. Manchester has been brought nearer to Liverpool by the canal, as Buffalo to New York by similar means, and one exceedingly important result has been that Manchester merchants are receiving their goods from abroad and are transacting all their business with Liverpool at a vast saving over prices pre-existing; because, if the canal does not execute the work, it is there as a standing menace to keep the railroads in order. It has had this effect in a remarkable degree, just as the Erie Canal has influenced the freight rates of the New York Central Railroad. This being the case, it matters little whether the canal does the carrying or not; it answers the end for which it was constructed, in giving the Manchester man all the relief for which he prayed.

Another extraordinary result is that a solid city is concentrating in the thirty-two miles of country between Liverpool and Manchester.

The map of South America shows a remarkable number of ports close to the ocean, when apparently they might better, in accordance with the law here presented, have been planted, geographically speaking, further inland; the fact seems to offer encouragement to the projects I have ventured to condemn.

Pará and Rio are prominent ports of the class in mind. It is true that Pará is 80 miles from the ocean. It might have been 600 miles farther up stream and have equally good accommodation for ships that seek its anchorage. It was located where it is, for several reasons. At a point 80 miles up stream, it is as far as it is possible to go and find a salubrious location, the soil at that spot being sandy and especially free from miasmatic poison. But this fact would not alone have weighed in its location, for men brave death in battle for the wages of the soldier. It was carried up there instead of locating it nearer the sea or farther up stream, for the purpose of getting as close as possible to the rich productive centre of the Province of Pará, which is unequalled in the wealth of its vegetable production. The Province of Pará is fairly well settled for Brazil. But the upper valley of the Amazon is still a wilderness, although along its course are many towns, the centres

of exchange for limited districts. Pará is at the mouth, also, of the Valley of the Guamá. Thence it receives the trade of a rich district and is the market of the rubber brought from the upper valleys. I have no idea that any other town, the peer of Pará, will ever rise to rival it in any part of the vast valleys of the Amazonas, because no town will have its site near so rich a centre of production as the Province of Pará and the Valley of the Guamá. It will therefore become a great metropolitan mart as well as port.

Rio de Janeiro has been mentioned as a commercial metropolis near the ocean. It is on a bay extending inland about 18 miles from the sea. The city is on the west bank four miles from the entrance. Apparently it might have been placed much nearer the interior. Now the interesting fact is that the original town was on the other side of the bay, close to the ocean at Nictheroy, and was moved to where it now stands to be more accessible to the interior. It is on the only flat in that precipitous shore, from which an accessible pass leads through the mountains to the interior, the Province of Minas Geraes, the most populous and best cultivated province of Brazil. At the same time it is accessible to the coast province of Rio de Janeiro, with a population of 1,000,000 souls. Rio has thus become one of the great markets of the world. Its exports equal in value those of all the rest of Brazil combined. It therefore occupies, in relation to Brazil, much the same position that New York holds with relation to the commerce of North America, having like New York an immense coast trade.

Observing the coast of the Guianas, we find nearly all their important ports near the ocean; accordingly we learn that their settlements are also along the coast. It is true that Paramaribo in Dutch Guiana is ten miles up the Surinam River, and Dutch Guiana is exceptional, in that its settlements have extended up from the coast on that stream. Georgetown, of British Guiana, is at the mouth of the Essequibo River on which there are many settlements; but they have not kept pace with the settlements on the more salubrious coast, and therefore Georgetown is put where it can best reach its more valuable class of customers.

Cayenne, at the mouth of the Oyac River, is a French penal settlement. Its location has no relation to trade, but it is nevertheless the port of French Guiana, placed where it can best be reached by the vessels that convey criminals from France.

I repeat that only the coast of the Guianas presents inducements to settlers, the interior being insalubrious.

It will be observed that Maracaibo, in Venezuela, is at the head

of the Gulf of Maracaibo. Apparently it should have been placed farther inland at the head of the lake, which is simply an extension of the gulf. The truth is that a bar at the mouth of the lake, where it enters the gulf, prevents the more desirable location, so that Maracaibo is really at the head of navigation. If the region prosper, so that in time it will repay commerce to remove the bar, then the port will undoubtedly go to the head of the lake.

Cartagena, in Colombia, is on the ocean coast like Galveston. Its history, like that of Galveston, indicates the progress of settlements in that part of the Republic. Two ports have been started to do that which Cartagena has failed to do, *i. e.*, furnish proper facilities for accommodating the new condition, by reaching the customers of the men who conduct the trade of the region. Santa Marta was started with the idea that easy access from the ocean was the principal requirement for a port, and being located under the influence of this blunder on the coast, attained to a population of barely 4,000 living on a trifling coast trade, while Barranquilla, fifteen miles up the Magdalena River, near the producing centre, has already a population of 21,000, being more than twice that of the original port, which has dwindled to 9,000 and is still decreasing.

Angostura, also known as La Ciudad de Bolívar, on the Orinoco, is 240 miles from the mouth of that river. Vessels of 300 tons go up there under sail against a strong current. Still it is by no means at the head of navigation. It would be as easy to go farther up as to go to Angostura. But at the distance now reached commerce is at the gate of the region it seeks. There it is the treasure is found in the customers of the best producing district yet settled, and there it remains to barter its goods for the produce of the country.

The South American continent is not yet peopled. It has scarcely begun the progress of the century, and the future is all before it. A great future it will surely be, when the northern half of the hemisphere is filled with its rapidly multiplying millions, and their influence has forced real liberty on the governments of those states now under control of a debased ecclesiastical system. At the present time many of the South American ports hold to the country just the relation held by the port of Boston, before the settlement of the interior brought other cities to the front, when Boston was the most important commercial city in North America.

The direction of trade routes, barely touched in discussing the relative positions of New York and Boston, is an important factor

in establishing and maintaining the commercial metropolis of a region. It was mentioned that Boston capital had tapped the country north of New York in the hope of drawing off the trade of the West to itself. The result of the Western railroad has not been what was expected of it. Troy and Albany are nearly at equal distances from New York and Boston, but the immense capital of the Eastern city failed to seize the products of the West. The enterprising Bostonian saw that a mountain intervened, and he pierced the obstacle, reducing the difficulties of transportation to their lowest terms. Still he has to contend against one radical truth, which he is either ignoring or striving to eliminate from existence by persistent employment of capital. This truth is that trade follows natural channels; that the staple products of the soil and all the coarse minerals will reach the coast by the route that permits the easiest movement with the least artificial aid, generally the lines of drainage of a country. The trade of a region will not cross a great valley even to reach a market of the first importance. It will either create centres of exchange in such valleys or, having reached them, follow down their course to a port. Thus, Western produce reaching the Hudson River will follow that stream to New York for exportation, as the produce of the immense Mississippi Valley goes to New Orleans and not to Mobile.

In the Northwest, the relation of Portland, on the Willamette, to Puget Sound closely resembles that existing between the ports of New York and Boston. Portland occupies the site of a great commercial centre for an immense region, the entire basin of the Columbia River, of which 160,000 square miles are within the limits of the United States. All the country west of the Rocky Mountains, tributary to the Northern Pacific Railroad and seeking an outlet on the western coast, will, on going that way, make the mouth of Snake River, on the Columbia, a common point of departure for Puget Sound as for Portland; from that point the trade will either descend the great valley or, proceeding along the line of railroad, cross the Cascade range and enter the Puget Sound district for a harbor.

The lineal distance in either case is about the same. The commercial distance is greatly in favor of Portland. In this case there is a descent of 300 feet in favor of west-bound traffic going to Portland. There is only this ascent in going east. On the other hand, there is a summit of 2,400 feet to be overcome by west-bound traffic and 2,700 for that east-bound, besides the sinuosities

of a severe mountain line and the income demanded by increased cost of constructing it with fairly practicable grades.

And yet intelligent men believe it possible to remove the commercial metropolis of the region from the spot on which nature located it and transfer it to Puget Sound, because they have planted capital there for such a purpose.

A distinguished advocate of this remarkable system of supplanting commercial centres and centres of exchange declares with some emphasis that "the commercial ports of the world were established before the existence of modern facilities for transportation; having become established and capital being located, they have maintained their positions as commercial centres, although we cannot say they would have been so located if the railroad systems of the country had first been built." The statement is an important one, because it is precisely the sort of reasoning that has led to a vast dissipation of capital. The truth is, and this statement is one proof of it, that the commercial ports of the country have grown up in accordance with natural law, when men were without artificial means to help them; they are therefore instinctive or intuitive locations. So true is this that one cannot state the case of a new commercial port, started by the influence of capital and railroads in rivalry or opposition to one of the old ports, that has been a success, that has not, indeed, been a pronounced failure, and there are many such attempts. It would be impossible to mention a commercial port the relation of which to its neighboring ports has been changed by the influence of railroads. Certainly, railroads have increased the commercial wealth and machinery, but they have not diverted, and I dare to say they never will divert, trade from the direction of its natural channels.

Every new commercial port undertaken by railroad capitalists has been a failure in reaching the fulfillment of its promises, and such enterprises must continue to be failures.

Ports will be established by trade and by trade alone. The railroads do not make the trade of the country; they are the offspring of its trade. Trade exists without railroads, but railroads cannot exist without trade.